

Vernacular Names of the Plants of Bikini, Marshall Islands Pacific Plant Studies 12¹

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IN 1946, in connection with the atomic bombing at Bikini, "Operation Crossroads," general scientific studies were made upon this coral atoll in the northern Marshall Islands, in the central Pacific Ocean. In the plant kingdom general collections were made, even of the bacteria and the phytoplankton. The remaining plant groups were collected in 1946 by Dr. W. R. Taylor, a specialist on marine algae, and he studied and reported on most of them. His general account of the flora has now appeared in book form (Taylor, 1950). In this book he includes 41 species of angiosperms as composing the terrestrial flora of Bikini. Taylor did not obtain a record of the native names of the plants in use by the people of Bikini, who had already been removed to Rongerik atoll, since their home island was to become dangerously radioactive. They went first to Rongerik which, after 2 years of residence, proved inadequate, then temporarily to Kwajalein until a final relocation was made in November, 1948, at Kili Island in the southern Marshalls.

Appreciating the value of the Marshallese ethnobotany, St. John urged Mason, who was

about to visit Kili and the Bikini people on an inspection trip, to attempt to compile it from native informants. On August 14, 1949, Mason spent 2 hours collecting plants, beginning at the village on the north shore, following the beach westward to the end of the island, and then cutting back to the village through the interior of the island. The plants collected and here listed are those recognized as characteristic Bikini plants by Jibaj, Ejkel, and Joaj, male adults and former residents of Bikini, who were selected because of their knowledge of Bikini's plant life. Seventeen plants common to Kili and Bikini were collected, and they have been identified by St. John and deposited in the Bishop Museum. The informants were in unanimous agreement about the naming of 16 of them, but one man disagreed on the spelling of a single vernacular name, that for *Eleusine indica*, although the difference in their spelling and pronunciation was slight and was due to the inadequacies of the orthography used by the Marshallese in spelling their language.

The orthography here used is that established by the Protestant Mission and published in their Bible in Marshallese, printed in 1885. Vowel pronunciation is as follows: a, e, o, and u are like those in Spanish; ā, as in English *bat*; i, as in *bit*; ō is a central vowel somewhat like the u in English *cut* but higher in the mouth. Frequently certain vowels are preceded by a definite w sound. The consonants t and d are spelled as t, but when placed medially in a word are pronounced more like d; the same applies to the pair k and g, k

¹ This is the twelfth in a series of papers designed to present descriptions, revisions, and records of Pacific island plants. The preceding papers were published as: *Bernice P. Bishop Mus., Occas. Papers* 17 (7), 1942; 17 (13), 1943; 18 (5), 1945; *Amer. Fern Jour.* 35: 87-89, 1945; *Torrey Bot. Club, Bul.* 73: 588, 1946; *Pacific Sci.* 1(2): 116, 1947; 2(2): 96-113, 1948; 2(4): 272-273, 1948; 5(3): 279-286, 1951; 6(2): 145-150, 1952; *Weberia* 8: 225-228, 1951.

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being written to stand for both, though pronounced more like g when placed medially. The letter g is used only with the sound *ng* which the Marshallese spell as *n̄*.

VERNACULAR NAMES USED BY NATIVES
OF BIKINI

Pandanus sp. "Bōb anbwiri"; a second variety "bōb erwan." (Because the specimens of the fruits were lost in transit, specific identification could not be made.)

Eleusine indica (L.) Gaertn. "Ujuj" (or "ujoj"). Although this plant was not collected by Taylor on Bikini, it is common on many of the Marshall Islands, and this report for Bikini is trustworthy. "Ujuj" is a general name for a number of weeds, mostly grasses. This one may be good in treatment of diarrhea.

Cocos nucifera L. "Ni." Very generally useful to the Marshallese.

Tacca Leontopetaloides (L.) Ktze. "Mōkmōk." It is good in the treatment of diarrhea when eaten by itself, or as food when mixed with coconut cream, *Pandanus* fruit pulp, sugar, or toddy. The seed (fruit) is wrapped in a piece of coconut cloth, "inubil," and used as a scent-stimulant by pregnant women experiencing morning-sickness.

Fleurya ruderalis (Forst. f.) Gaud. "Nen kōt-kōt." It is used only for medicine. The leaves, root, and stem are crushed, the juice thus obtained being mixed with water and coconut milk. The potion is given to a person who is distressed and yelling or crying, in order to make the evil spirit go away. This is a new record for Bikini, as Taylor did not find it there. However, it is not unexpected as it is known on Eniwetok and is widespread in the Marshalls.

Pisonia grandis R. Br. "Kangōl." A tree useful for house timbers, especially posts, because the wood lasts a long time.

Triumfetta procumbens Forst f. "Atat." A ground creeper, said to be the most valuable vine in Bikini. The bark is stripped off, then, by fretting in the hands, the easily broken

outer bark is removed. The smooth, fibrous band of inner bark is dried in the sun to an orange-brown color of varying shades and used as a fiber to provide ornamentation in finely woven *Pandanus* matting. The leaves are crushed and placed as medicine on open wounds. Sometimes the leaves, yellow and brown, and the woody part of the stem are mashed, giving a liquid used as a potion for treatment of gonorrhea.

Hibiscus tiliaceus L. "Lwo" (pronounced like the English "law"). A tree, the wood of which is light, for which reason it is used for masts and booms of sailing craft and for pieces of the outrigger frame of canoes. The inner bark is used for handicraft fiber, for cord, or for string.

Pemphis acidula Forst. "Konge." A tree, the hard wood of which is used for the canoe keel, for the apex of the canoe mast, and for the pieces fitted into the canoe bow and stern where the sail booms are lashed. It is also used for the husking stake ("rōn"), for the digging stick to uproot *Tacca*, and for a beater for pounding soaked coconut husks when making sennit ("eokwal").

Terminalia litoralis Seem. "Ekōng." A large tree, the wood of which is used for making the elongate bowls in which the "beru" (fruits of *Pandanus* and tubers of *Tacca*) and the "bwiru" (preserved *Artocarpus* fruits) are mixed. The leaves and root are used for medicine.

Ipomoea tuba (Schlecht.) Don. "Mar bōle." A vine which is regarded as harmful, since it kills any tree on which it grows. It has small roots (tubers as small as marbles) which long ago were used for food. After being cooked overnight in the "umum" (underground oven), they were eaten like a potato. Previous records from the Marshalls have been called *I. grandiflora* or *I. alba*, but these were misdeterminations.

Cordia subcordata Lam. "Kōno." A tree with red flowers that are used in making leis. The wood is used for many purposes in Bikini where the tree occurs in great abun-

dance, more so than elsewhere in the Marshalls. The wood is used for making the block on which *Pandanus* or *Cocos* fiber hats are plaited, for the hull, bow and stern pieces, and interior hull braces of a canoe, and for paddles. Recently it has been used for many tourist souvenirs, such as outrigger canoe models, bowls, cups, and clogs.

Messerschmidia argentea (L. f.) I. M. Johnston. "Kiren." A tree which, if large, is used for canoe hulls, if small, for the curving booms of the outrigger. The bark is useful. First the dry outer bark is scraped off and removed, then the inner bark is scraped, making wet shavings that are good for placing on a cut. The young leaves are pounded to obtain a juice which is good to drink for a stomach-ache or for any general ache in the body. The seeds are pounded to obtain a juice which is applied to gum boils or canker sores in children's mouths; it is also good for treatment of diarrhea.

Guettarda speciosa L. "Wut." A tree, the wood of which is useful for house frames, house posts, outrigger booms, and the diagonal braces between the outrigger and the canoe hull. When large, it is also used for canoe hulls. The leaves are medicinal.

Morinda citrifolia L. "Nen." A tree, the wood of which is used for the framework of a house. The leaf, root, and fruit are strongly medicinal. The seeds are pulverized and the pulp applied to any tooth which is causing pain. The root is scraped, then the scrapings, together with young coconut husk, are boiled to make a light-brown dye for handicraft fibers, such as *Triumfetta*, *Hibiscus*, and young coconut leaf, but not for *Pandanus*.

Scaevola frutescens (Mill.) Krause. "Kōnnat." A shrub or small tree, the wood of which is used for the curving booms of the outrigger; also for the roof frame of a house. The leaf is used to make a bitter drink which is given to a pregnant woman just

before and just after childbirth ("to clean up the belly inside"); it is also used to wash the mother's body.

Mason also obtained notes on other species not collected on the excursion but known to be common to Kili and Bikini. Since they are known by the same vernacular names on the other Marshall Islands, it is possible to identify them with surety. These are:

Artocarpus incisus L. f. "Mā." Two varieties exist: "betaktok," the fruits of which are large and seedless and make excellent food; and "mejwan," the fruits of which are seed-bearing.

Hernandia ovigera L. "Bing bing." A tree, used for canoe hulls.

The three Bikinian informants also told of eight other plants characteristic of Bikini but not occurring on Kili. For each they furnished the vernacular name and a description. By use of these we have identified six of them. They are:

Portulaca samoënsis v. Poelln. "Bujang." "A low bush." In Taylor's book this is listed as *P. quadrifida* L., the valid name of an African species, but we consider it a misidentification of the Pacific species.

Cassytha filiformis L. "Kanōn." "A leafless vine which kills the trees on which it grows."

Sophora tomentosa L. "Kille." "A tall tree, about 15 to 20 feet high."

Suriana maritima L. "Kalange." "Somewhat like 'kongē' (*Pemphis acidula*) but smaller."

Euphorbia Atoto Forst. f. "Berrol." "A low bush, with small leaves, which when cut exudes a milky juice." Taylor (1950: 3) stated that members of the Euphorbiaceae do not occur on Bikini or the northern Marshalls, but this species and three other members of the family are now known to occur on Eniwetok, so this report is credible.

Sida fallax Walp. "Kio." "A bush with a yellow flower."

Of the list of eight species named and described, there remain two which we have not identified:

"Kōra." "A bush about two feet high, with leaves like 'nen kōtkōt' (*Fleurya ruderalis*), but larger."

"Kāliklik." "A thorny bush." The name "kai-liklik" is regularly used in the Marshalls for a cultivated variety of *Cyrtosperma Chamissonis* that has prickly petioles, but that does not seem to be the right application of it here. The vernacular name means thorny or prickly. On Bikini this name might be applied to *Achyranthes canescens*, which is prick-

ly enough to deserve the description.

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